

EAS 1600 Syllabus

Environmental Science Lecture (3 credits), section A

Environmental Science Laboratory (1 credit), sections T2 and W2

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Instructor Information

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General Course Information

Description

Introduction to how the Earth functions as an integrated system through exploration of the atmosphere, hydrosphere, geosphere, and the biosphere. Laboratory exercises supplement the Lecture material.

Course Learning Outcomes

Upon successful completion of this course, you should be able to:

- Describe the components of the Earth System
- Identify interactions between the components of the Earth System through flows of materials and energy
- Discuss the human influence on the Earth System

Required Course Materials

This is an open educational resources (OER) course. All Lecture/Lab materials will be provided to you through Canvas.

A suggested reference text is Kump, L.R., J.F. Kasting and R.G. Crane (2010): [The Earth System](#), 3rd Edition, Pearson; ISBN-13: 978-0321597793.

You will submit assignments during Lecture and Lab. You must bring a functioning laptop that meets Georgia Tech's [minimum hardware requirements](#) to class. Georgia Tech has negotiated with Lenovo to offer a [discounted laptop](#) that fulfills the student computer

ownership minimum hardware requirements. As a last resort, the Office of Information Technology has a *limited* number of [laptops available for short-term loan](#) for those in need.

PointSolutions software will be used. The app is available to download on your mobile device through your platform's app store. If you prefer using your browser, you may log on to [student.turningtechnologies.com](#) to participate. In either case, you will need your Georgia Tech email to sign in. If you need any assistance using PointSolutions, you may visit the PointSolutions support site, where you can chat with a support agent or create a support ticket.

Microsoft Excel is required for Lab Assignments and is available for free through the Georgia Tech [OnTheHub Webstore](#).

Grading Policy:

Your grade in this course will be based on your performance within the following categories:

- Lecture Activities – 30% of final grade
- Lecture Exams – 45% of final grade
- Lab Assignments – 25% of final grade

Letter grade ranges are as follows:

- 90.00 – 100.00 = A
- 80.00 – 89.99 = B
- 70.00 – 79.99 = C
- 60.00 – 69.99 = D
- ≤ 59.99 = F

Georgia Tech does not assign +/- grades.

If you take this course as pass/fail, a “passing” grade requires achieving a C or higher.

As a 1000-level class, mid-term grades of satisfactory or unsatisfactory must be reported. A grade $\leq 69.99\%$ will be reported as unsatisfactory.

Description of Graded Components

Lecture Activities (30% of Final Grade)

During every regular Lecture you will earn points through questions/activities embedded in the Lecture. Some activities will be graded for participation/completion. More detailed activities will have associated rubrics; fulfill the categories on the rubric to obtain full points. If you submit work that indicates that you did not take the prompt seriously, or you

copied/pasted from another student, a webpage, or generative AI, you will receive a zero for your submission. Daily activities will be diverse in scope and may include answering multiple choice questions throughout the Lecture with PointSolutions, working individually or in groups on practice problems for an upcoming exam, discussion activities about topics in the news relating to the class, and other hands-on activities that work directly with the course content. We will drop your four (4) lowest Lecture Activity grades.

Lecture Exams and the Optional Final Exam (45% of Grade)

There will be three (3) regular Lecture Exams scheduled throughout the semester and one (1) optional Final Exam. The Final Exam is optional in that it can replace a lower grade on a previous exam. It is not required that you take the Final Exam.

Each Lecture Exam is worth 15% of your total semester grade. Each Lecture Exam is non-cumulative; the optional Final Exam is cumulative. Exam question format will be a mix of multiple choice, multiple answer, true/false, and short answer questions. You must bring your BuzzCard or other valid government-issued identification to the exam—no exceptions. No breaks are permitted during the exam—if you need to leave the exam room, your exam will be collected before you leave. Exams are closed to any external resources: you will not be able to access your notes, the Internet, or other students for help when you answer these questions. If you are found to be accessing external resources of any kind on the Exam you will be assigned a zero on the Exam.

Lab Assignments (25% of Grade)

Each week we will complete one (1) Lab. Labs include the following: Pre-Lab Quiz (5 points), Beginning-of-Lab Warmup Activity (5 points), and the Lab Assignment (90 points).

- You have three (3) attempts to complete the **Pre-Lab Quiz**; it is due 15 minutes before your Lab section starts. If you are in the Tuesday (T2) Lab, please plan ahead so that you can pay attention in Lecture and take your lunch/mental break before Lab.
- The **Beginning-of-Lab Warmup Activity** will start promptly at the beginning of the Lab section. This briefing will include important topics before starting the Lab Assignment including an overview of the procedure and safety considerations. Arriving on time is vital to your performance in the Lab activity. Tardiness will result in loss of points. *You will not be permitted to perform the Lab if you miss this activity.*
- The **Lab Assignment** is designed to take approximately two (2) hours to complete. You are expected to complete the Lab within CULC 357 except in the case of a Digital Learning Day due to a campus closure. Otherwise, Labs cannot be completed remotely. If you have ODS accommodations for extended time, that will

be reflected on your Lab Assignment. TAs will grade your work within two (2) weeks of submission.

We will drop your lowest Lab score (Pre-Lab Quiz, Beginning-of-Lab Warmup, and Lab Assignment) but please note that the final Lab of the semester cannot be dropped.

Course Policies

Attendance and/or Participation

This is an in-person class and your presence in the Lecture and Lab are essential for your success. Your contributions in each are meaningful for your learning and that of your classmates.

We understand that people may have summer vacations planned, so we have built the grading scheme to allow you to miss one full week of class without impacting your semester grade.

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review [Georgia Tech's Honor Code](#) and the student [Code of Conduct](#).

Any student suspected of cheating, plagiarism, or unauthorized use of artificial intelligence will be reported to the Office of Student Integrity, who will investigate the incident. The penalty for the first offense is a zero on the assignment or exam. This zero cannot be one of the dropped grades. The penalty for subsequent offenses is at Dr. Boop's discretion.

Core IMPACTS

[Core IMPACTS](#) is the University System of Georgia's General Education curriculum. This course meets the requirements for the [Technology, Mathematics & Sciences IMPACTS area](#): Students will use the scientific method and laboratory procedures or mathematical and computational methods to analyze data, solve problems, and explain natural phenomena. Course content, activities, and exercises in this course should help students develop the following career-ready competencies: inquiry and analysis, problem-solving, and teamwork.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, [contact the Office of Disability Services](#) (404-894-2563) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Email your

accommodations via ODS. Dr. Boop will confirm receipt via email and ask any necessary follow-up questions.

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. [The Student-Faculty Expectations](#) articulate some basic expectations that you can have of us and that we have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, we encourage you to remain committed to the ideals of Georgia Tech while in this class.

Extra Credit Opportunities

Extra credit may be offered in small amounts throughout the semester. This is at the discretion of the Dr. Boop and TAs.

There will not be an opportunity to significantly bring up your grade at the end of the semester through additional assignments beyond the information provided in the Grading Policy and Description of Graded Components section of this syllabus.

Collaboration and Group Work

You will have many opportunities to collaborate with classmates and participate in group work in Lecture and Lab. Strong teams discuss ideas to come to a shared understanding. Ensure that everyone is actively contributing.

Use of Generative AI

We now live in a world where artificial intelligence (AI) is prevalent, and it is very convenient to use for many day-to-day applications. Here is a breakdown of when AI is authorized vs. unauthorized. Note that any unauthorized use of AI is a violation of the Georgia Tech Academic Honor Code.

When AI is *authorized* in this course:

- Assisting with note taking during Lecture
- Using it as a study tool to create questions to quiz yourself with*
- Using AI to draft your open-ended answer (paste the text you wrote into the tool and then take any suggestions you agree with to modify your original text: *do not simply copy and paste the AI output as your answer*)

When AI is *unauthorized* in this course:

- Submitting an AI-generated answer (with or without modifications) for Lecture Activities
- Submitting an AI-generated answer (with or without modifications) in response to a Lab Assignment

* use caution when using AI to study. Exams are built from the content covered in Lecture. AI might give you irrelevant or erroneous information. Your best reference materials are the Lecture PowerPoints (posted on Canvas) and visiting us during our office hours.

Dropped Grades Policy

We will drop the lowest scores for four (4) Lecture Activities, one (1) Exam, and one (1) Lab Assignment. *If for any reason you miss class* this absence will count as your dropped grades. Additional absences must be excused for those grades to also be dropped or work made up. See further details on excused absences in the next section.

If you earn a zero for academic dishonesty, this grade will *not* be dropped. This zero will be included in your final grade calculation.

Extensions, Late Assignments, & Re-Scheduled/Missed Exams

Work will be excused or made up *only* with an excused absence.

Excused absences must be substantiated with documentation submitted to the appropriate campus entity:

- [Office of Student Life](#): submit documentation for your absence related to documented illness, hospitalizations, accidents, death in the family, family emergencies, and lengthy illnesses.
- [Registrar's Office](#): submit documentation for your absence related to Georgia Tech field trips, conferences, and athletic events at least two weeks before your requested absence. This form can also be used for religious absences in the first two weeks of the semester.

In accordance with Georgia Tech's [Attendance](#) policy, "students who are absent because of participation in a particular religious observance will be permitted to make up the work missed during their absence with no late penalty, provided the student informs the course instructor of the upcoming absence, in writing, within the first two weeks of class."

Upload your excused absence verification paperwork in the "Excused Absence" Module on Canvas:

- After obtaining an approval notice from the Office of Student Life or the Registrar's Office, submit that approval notice by the end of the class meeting immediately following receipt of your approval notice.
- If you have a religious observance, submit your absence request within the first two weeks of the semester.

Inclement Weather and Digital Learning Days

If campus is closed due to an emergency, Dr. Boop will communicate whether class is canceled or if we will shift to a Digital Learning Day through a Canvas Announcement. Configure your Canvas account to ensure that you receive notifications.

Student Use of Mobile Devices in the Classroom

Some in-class activities will ask you to use your mobile device. When that activity concludes, put your mobile device away so that it does not become a distraction for you or those around you.

Food and Drink in the Lecture Room

Many instructional classrooms prohibit the consumption of food and drink. Adhere to posted policies.

Food and Drink in the Laboratory

For safety reasons, food and drink are *never permitted* in CULC 357. You may secure these items *in your backpack* or in the bin outside of the Lab room.

Students may leave the Lab room to take care of their needs. Time these breaks for when you are not actively working with other students to perform an experiment or group work.

Laboratory Safety

Each student will complete the "Policies and Safety Rules for the EAS 1600 Lab" document on Canvas within the first two weeks of class. This document outlines policies to keep you and your classmates safe in the Lab.

Dr. Boop will post a weekly announcement calling your attention to specific safety considerations for the following week's Lab. During weeks that we use glassware and boiling water, you will be required to wear long pants/skirt and shoes that cover the whole foot. If you arrive to Lab in improper attire, your TAs will not allow you to participate in the Lab.

Your TAs will begin Lab with the Beginning-of-Lab Warmup Activity. This short presentation will include a safety briefing. If you miss this activity, you will not be able to participate in the Lab.

Campus Resources for Students

Undergraduate Student Academic Success Resources:

A list of resources for undergraduate students' academic success and information about advising can be found at [Success at Tech](#).

Academic Success and Advising (a unit in the Office of Undergraduate Education & Student Success) provides free support for your courses. Students can attend scheduled supplemental review (PLUS) sessions, stop by Drop-In Tutoring, or schedule a one-on-one appointment through Knack. To explore what options work best for you, please visit us online at success.gatech.edu/tutoring, email us at tutoring@gatech.edu, or come see us at Clough Undergraduate Learning Commons, Suite 283.

Student Well-Being:

At Georgia Tech, we are concerned about your overall physical, social, and mental well-being. A [comprehensive list](#) of wellness related resources has been compiled and maintained by the Office of the Vice President for Student Engagement and Well-Being.

How to Succeed in EAS 1600

Below is a list of actions we suggest to help you succeed in this course:

- **Attend class regularly.** Graded activities occur during every Lecture and Lab meeting. Arrive early to settle in.
- **Engage.** When you are in class, make sure that you are actively engaged with the content. Take notes by hand during Lecture, re-write them to organize them and add more detail after. Make flashcards for vocabulary and practice with them a few times a week. Don't wait until the exam to study—start on day one!
- **Utilize office hours.** Your instructors and TAs hold office hours to answer your questions. We love answering your questions in office hours!
- **Connect with the material.** The best educational hack is to figure out how the material you're covering in class pertains to your life. Once you determine that it's useful information, you're interested, and it becomes easier to incorporate the information.
- **Communicate.** Ask questions. If you feel yourself slipping behind or struggling, reach out. We're here to help. If you are unsure about a course or institute policy, ask for clarification. Read the announcements on Canvas and all assignment instructions.